

Muskellunge

Fishing Regulations

Statewide Opinion Survey Review



Michigan Department of Natural Resources - Fisheries Division
Proposal for Muskellunge Regulations in Michigan

Prepared by the Esocid Committee, August 2012
Kregg Smith and Patrick Hanchin, co-authors

Fisheries Division began an internal review of muskellunge management and fishing regulations starting in 2007 (Thomas et al., In Press). Public comment on this effort was obtained in 2009 and again in 2010 where many respondents said they would like the Division to review regulations, stock more muskellunge, and review fishing opportunities. Over the past year, the Michigan Department of Natural Resources, Fisheries Division has been working with the Warmwater Resources Steering Committee (WRSC), a public advisory group, to discuss muskellunge regulations and to review muskellunge regulation proposals submitted by two angling organizations. As a result, several regulation options were developed and submitted to the public for comment. After an internal review of the draft options was completed, presented and discussed with the Warmwater Resources Steering Committee, Fisheries Division staff initiated a process to collect public comments regarding the proposed regulation change. An online survey was developed using Survey Monkey[®]. A link to this survey was posted on the “Fishing” page of the DNR website and a news release was issued to inform anglers of this opportunity for providing comments. This document is a compilation of those responses and recommendations for muskellunge recreational fishing regulations in Michigan.

Public Review and Input

From March 26 to May 25, 2012 Fisheries Division provided the public an opportunity to comment on proposed regulations, fishing quality, and to provide feedback on their demographics and mode of angling. A total of 704 online responses were received, but not all questions were completed (94.7% completed entire survey) and 16 respondents completed the survey by telephone. In addition, we held 17 public meetings across the state from March 26 to April 30 to inform anglers about local and statewide regulations and management decisions. Angler responses to possession of their legal-sized muskellunge were dominated by anglers that catch and release (93%) their legal sized fish as compared to those that indicated they mostly kept their catch (Figure 1). This indicates that the fishery for muskellunge is specialized compared to the more diverse interests of the northern pike fishery. Most anglers characterized themselves as casting anglers (76%; rod and reel with live or artificial bait) or trolling (21%) anglers (Figure 2). Spear anglers represented 3% of all respondents.

Respondents were asked to rate the importance of various factors in determining the quality of their fishing experience for muskellunge in Michigan. Respondents indicated that the enjoyment of the fishing experience was the most important factor determining the quality of their muskellunge fishing opportunity, while the number of muskellunge kept was not an important factor. Catching large fish and the number of fish caught and released were at least somewhat important to most respondents. Respondents were asked to select where they fished for muskellunge in Michigan. Most respondents indicated that they fished inland lakes in Michigan followed by those that fished Lake St. Clair and inland rivers. The least fished waters were the Great Lakes and St. Mary’s River.

Survey respondents were asked to rate their level of support for various size limits, possession, and season regulations for muskellunge in Michigan. Respondents supported the 46-inch minimum size limit (MSL), were neutral towards the existing 42-inch MSL, and were opposed to a proposed 38-inch MSL (Figure 3). Respondents also favored the possession limit of one fish per angler / per year with a harvest tag, were opposed to the existing daily possession of a single fish per angler, and were neutral towards a proposed possession limit of two fish per angler / per year with a harvest tag (Figure 4). There was no clear consensus on muskellunge recreational fishing seasons by all respondents (Figure 5).

Support for the higher MSL regulation and reduced possession limit was much higher among respondents that characterized themselves as catch and release anglers. Similarly, respondents that characterized themselves as casting anglers supported the more restrictive regulation options. Non-resident respondents also favored more restrictive regulations. Spear anglers somewhat supported the 38-inch MSL, although these supporters represented one and a half-percent of the responses. There was no clear regional trend

for any of the regulation types because the respondents were strongly weighted towards angling preference and these anglers occurred through the state (see Appendix).

Regulation Recommendation

The Esocid Committee believes that few Michigan muskellunge populations have been negatively affected under the current possession limit of one per day; however, this perceived protection is also largely due to the common practice of catch-and-release by muskellunge anglers. If muskellunge anglers were more harvest oriented, the current possession limit would likely not offer enough protection from overharvest. Additionally, in some waters anglers harvest more than one muskellunge per season and the overall harvest is high enough to cause reductions in size structure. We recommend implementing the following regulations for recreational muskellunge fishing in Michigan:

- Change possession limit to one fish per angler / per year with a free harvest tag
- Retain the 42-inch minimum size limit for most waters in the state.
- Evaluate a few waters that may receive special regulations of a higher or lower MSL based on the population's growth potential. Any such special regulations would not be implemented until April 1, 2015.
- Retain current recreational fishing seasons for most waters in the state.

The spawning season for muskellunge varies widely in Michigan. Some populations begin spawning soon after ice-out, which may be as early as April in southern Michigan, while other populations begin spawning in May and can continue through early June in northern Michigan and Great Lakes populations. This wide range in spawning period makes it difficult to protect populations with a single statewide season without being overly restrictive for populations in the southern latitudes of the state. The Esocid Committee believes that the current season for muskellunge does not protect most populations (both U.P. and northern L.P.) from harvest during the spawning period. Fisheries managers characterized only 28% of muskellunge waters statewide as being protected from harvest during the spawning period. The major need for protection during the spawning period is that muskellunge can congregate at high densities in rivers and shallow bays during the spawning period. They are not currently being harmed to any large degree since angler effort is generally low at that time of year and the number of overall anglers targeting muskellunge is relatively low. We recommend that fisheries managers review their specific populations and further evaluate if the current recreational fishing seasons are protective. If not, fishing or area closures should be considered for implementation on individual waters.

Unlike Michigan, recreational muskellunge spearing is not allowed in any other Great Lakes state or province. The reasons for spearing bans vary, but it is most often due to the management of muskellunge for large sizes, which requires limiting mortality through a variety of methods, one of which is spearing. In Minnesota, muskellunge are managed for "trophy" angling opportunities and utilize spearing bans as one method to accomplish that goal (Anonymous 2008). In Wisconsin, the spearing ban for muskellunge is largely a tradition, and it has not been allowed since they began regulating fishing (Tim Simonson, personal communication). In 1986, spearing for muskellunge was allowed in four states (Ragan et al. 1986), but more recently only Michigan reported allowing muskellunge spearing (Kerr 2011). Michigan retains this opportunity for darkhouse angling to protect its fishing heritage.

Literature Cited

Anonymous. 2008. Long range plan for muskellunge and large northern pike management through 2020, final draft. Minnesota Department of Natural Resources, Division of Fish and Wildlife.

Kerr, S. J. 2011. Distribution and management of muskellunge in North America: An overview. Fisheries Policy Section, Biodiversity Branch. Ontario Ministry of Natural Resources. Peterborough, Ontario.

Ragan, J., T. Steinwand, and G. Van Eeckhout. 1986. A synopsis of results from a questionnaire on muskellunge resource agency survey. American Fisheries Society Special Publication 15:370-372.

Thomas, M., P. Hanchin, and K. Smith. In Press. Management Plan for Muskellunge in Michigan. Michigan Department of Natural Resources. Fisheries Division Special Report.

In the past year, what did you normally do with the legal-sized muskellunge you caught in Michigan? (Please choose one answer.)

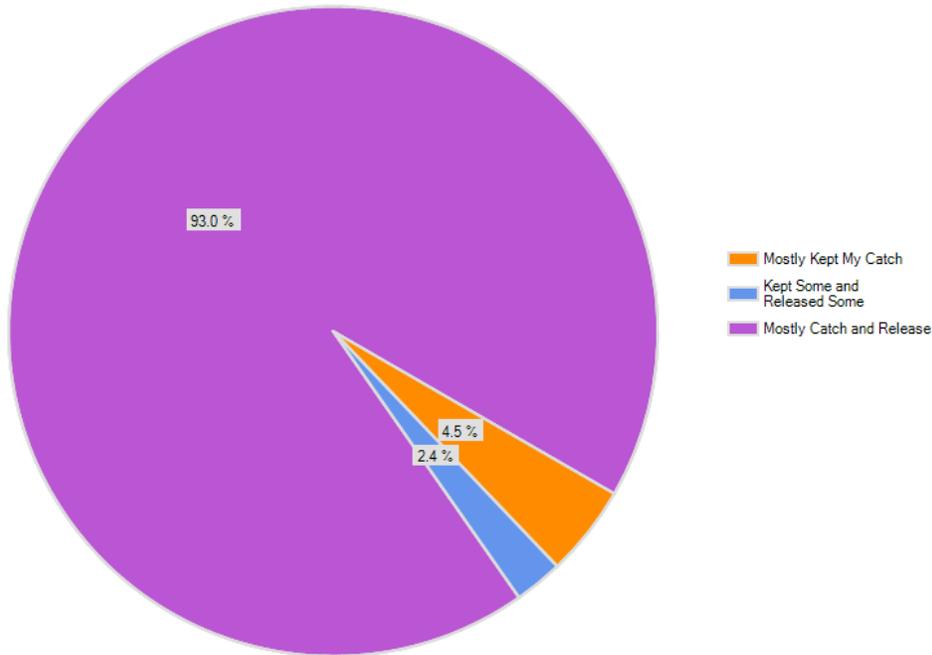


Figure 1. All responses to possession of their legal sized catch of muskellunge in Michigan. Includes Michigan and non-resident responses.

In the past year, what was the primary method you used when fishing for muskellunge in Michigan? (Please choose one answer.)

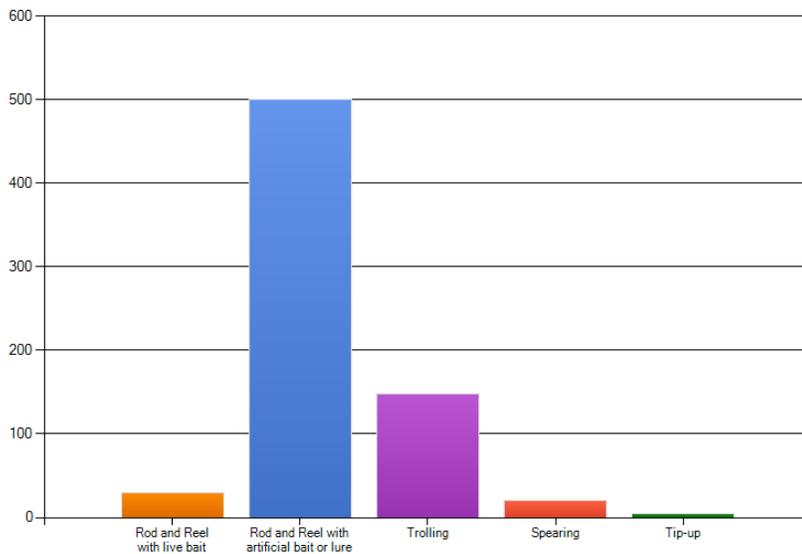


Figure 2. All responses to mode of fishing used to catch muskellunge in Michigan.

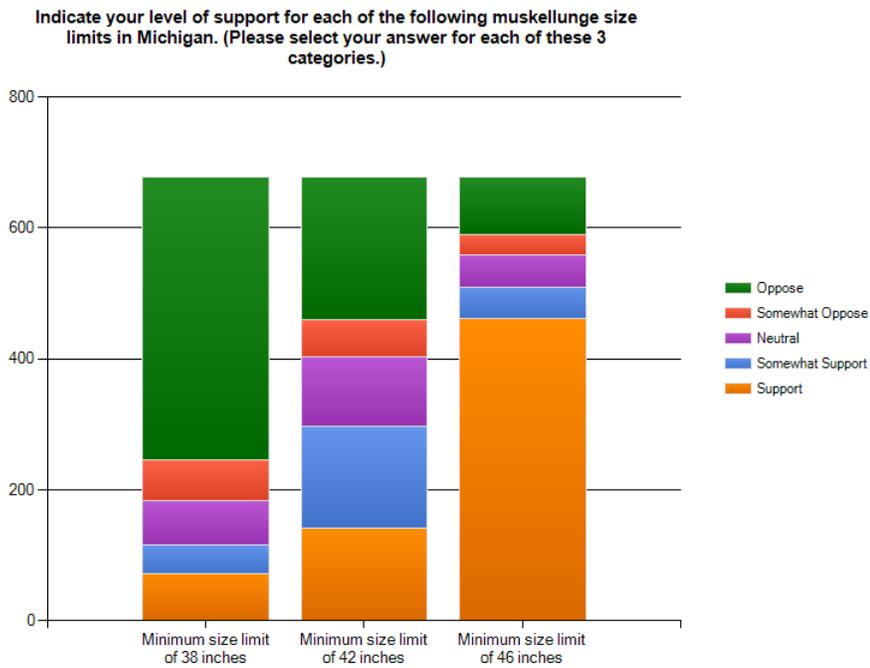


Figure 3. All Responses to muskellunge size limit regulations in Michigan.

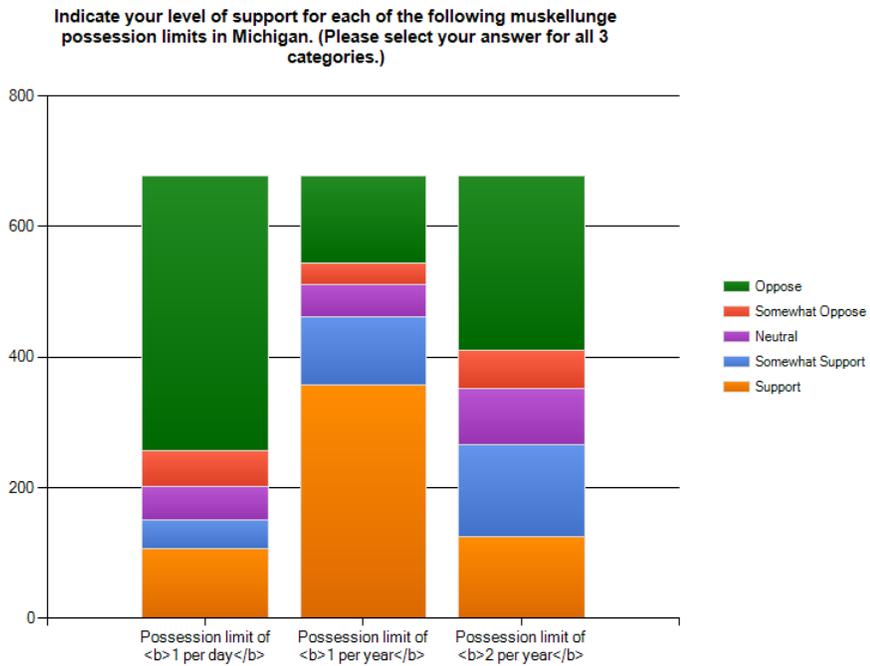


Figure 4. All Responses to muskellunge possession (bag) limits in Michigan.

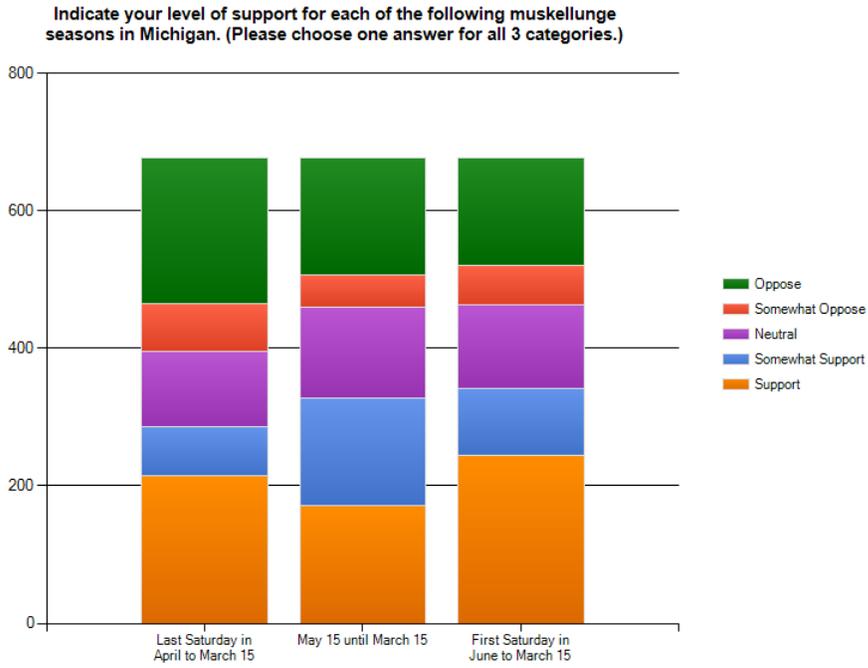


Figure 5. All Responses to muskellunge recreational fishing seasons in Michigan.

Appendix

Selected figures from a statewide survey on muskellunge fishing regulations

Michigan Department of Natural Resources
 Muskellunge Fishing Regulations

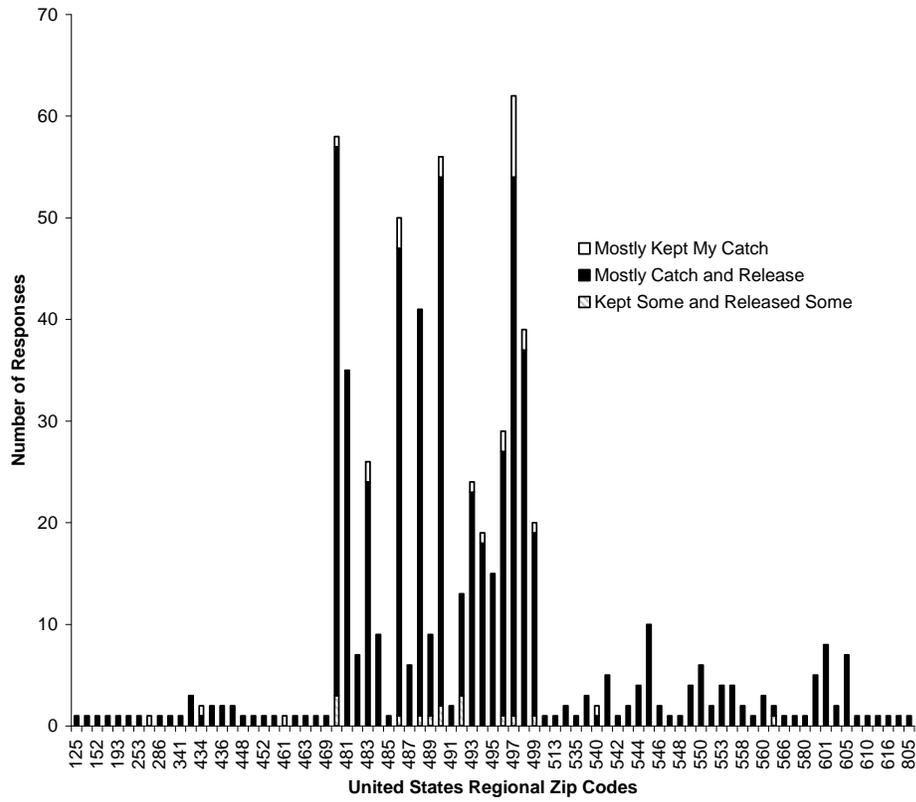


Figure I. All responses to possession of legal sized muskellunge in Michigan. Michigan regional zip codes are from 480 to 499.

Michigan Department of Natural Resources
 Muskellunge Fishing Regulations

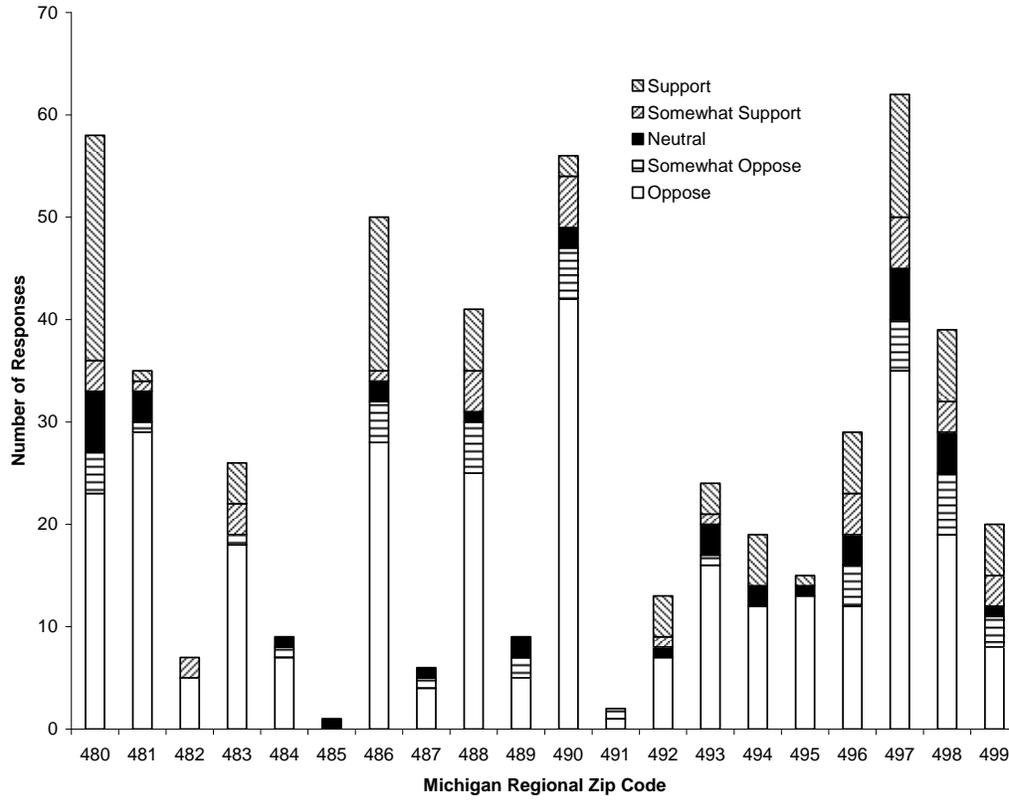


Figure II. Michigan responses by regional zip code to possession of existing limit of one muskellunge per day.

Michigan Department of Natural Resources
 Muskellunge Fishing Regulations

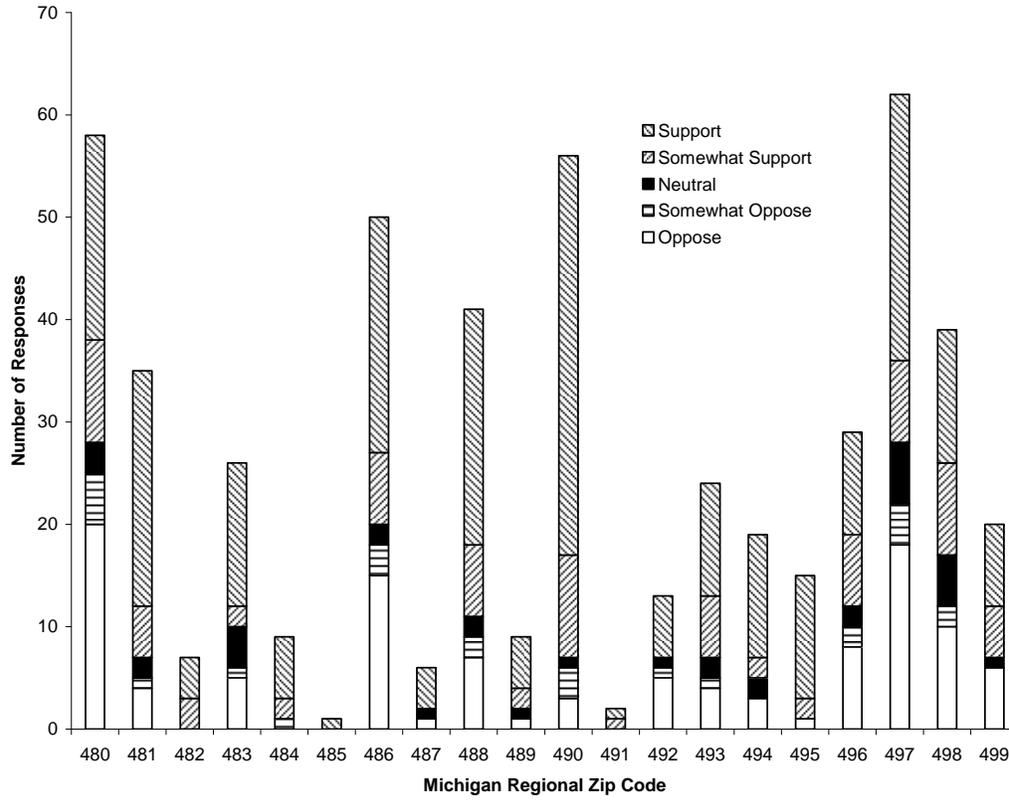


Figure III. Michigan responses by regional zip code to a proposed possession limit of a single muskellunge per season.

Michigan Department of Natural Resources
 Muskellunge Fishing Regulations

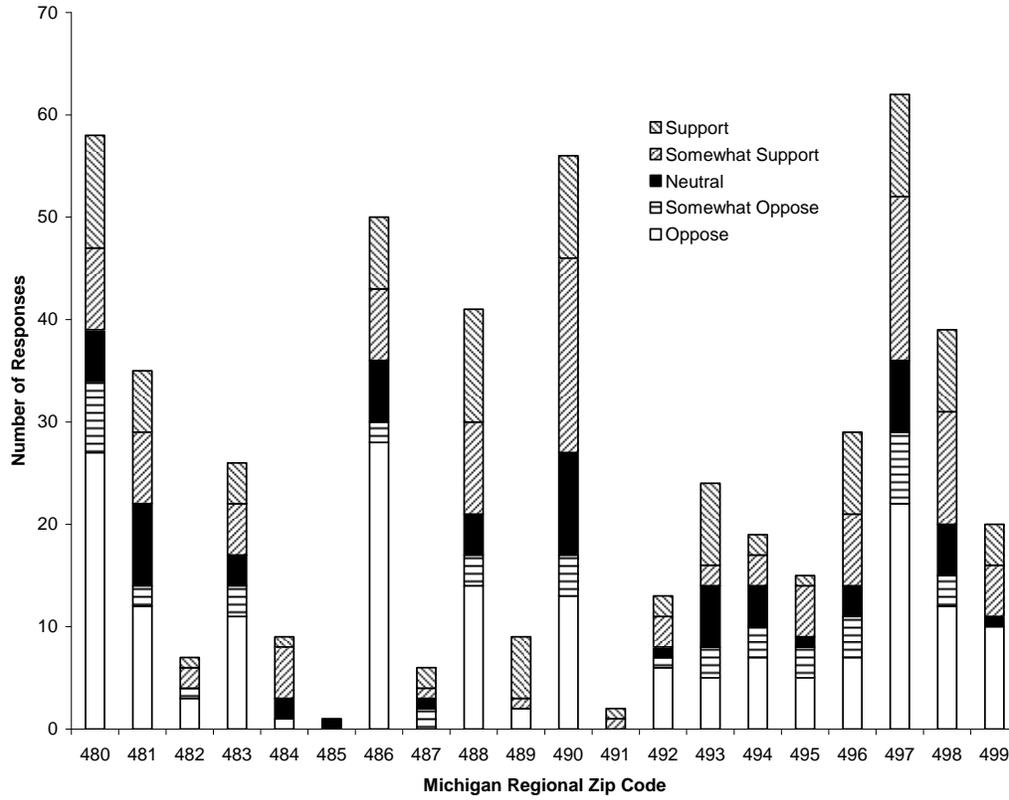


Figure IV. Michigan responses by regional zip code to a proposed possession limit of two muskellunge per season.

Michigan Department of Natural Resources
 Muskellunge Fishing Regulations

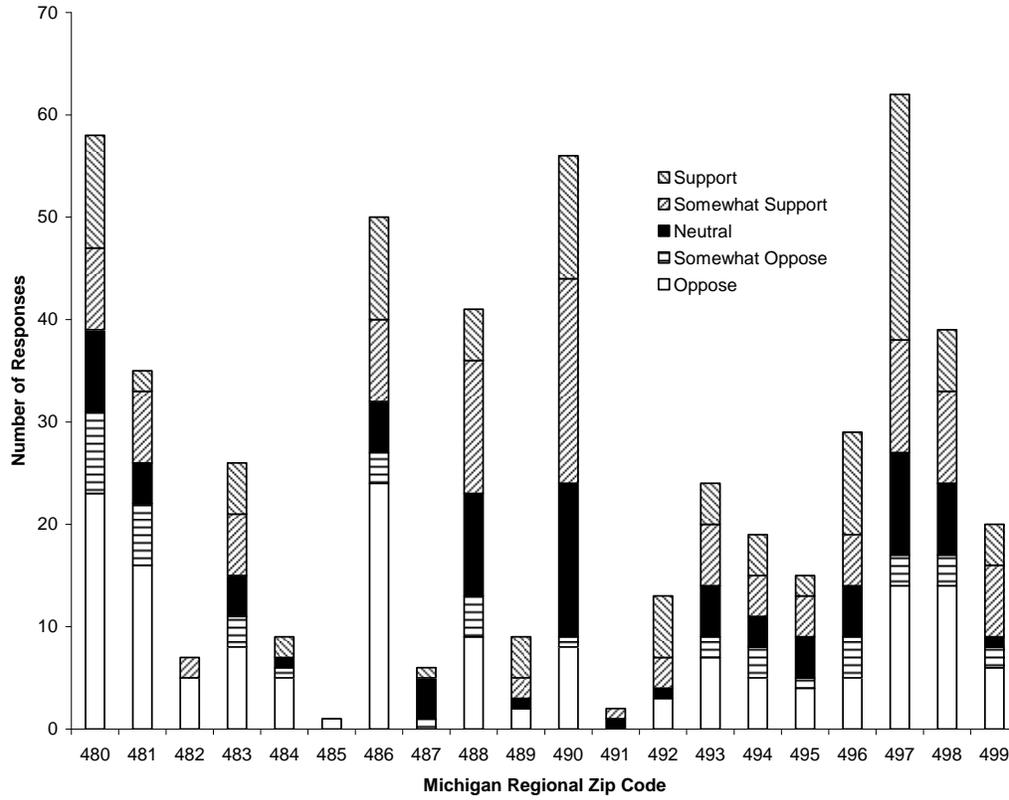


Figure V. Michigan responses by regional zip code to minimum size limit of 42 inches for muskellunge.

Michigan Department of Natural Resources
 Muskellunge Fishing Regulations

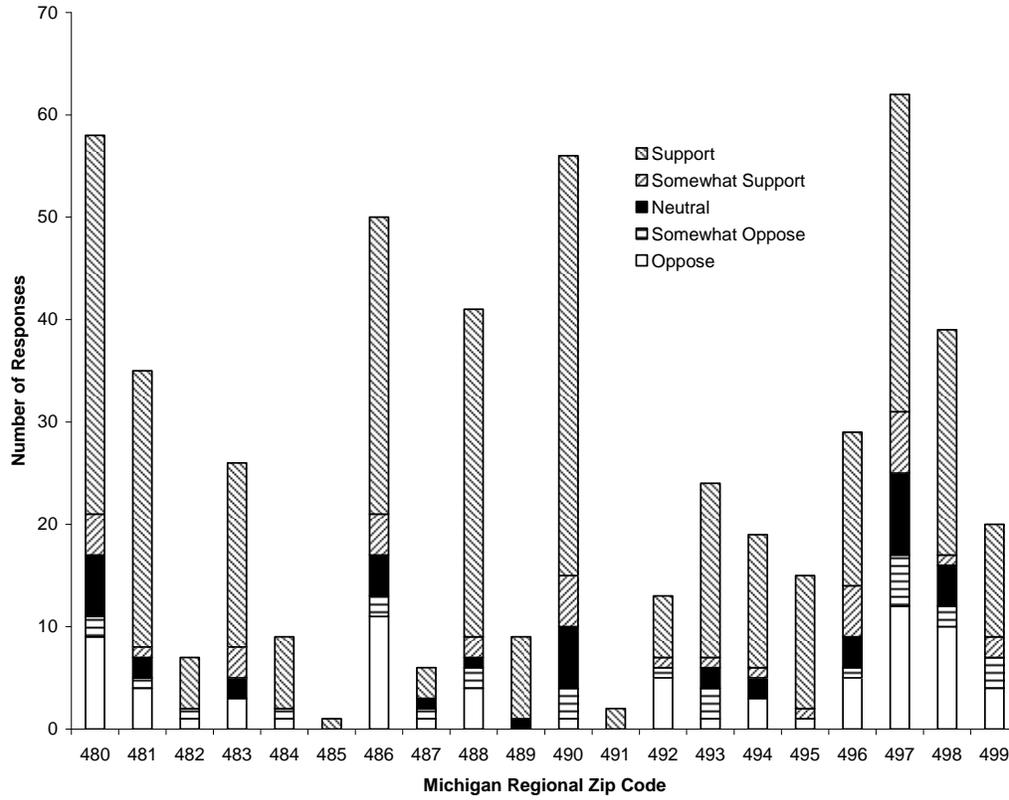


Figure VI. Michigan responses by regional zip code to a proposed minimum size limit of 46 inches for muskellunge.

Michigan Department of Natural Resources
 Muskellunge Fishing Regulations

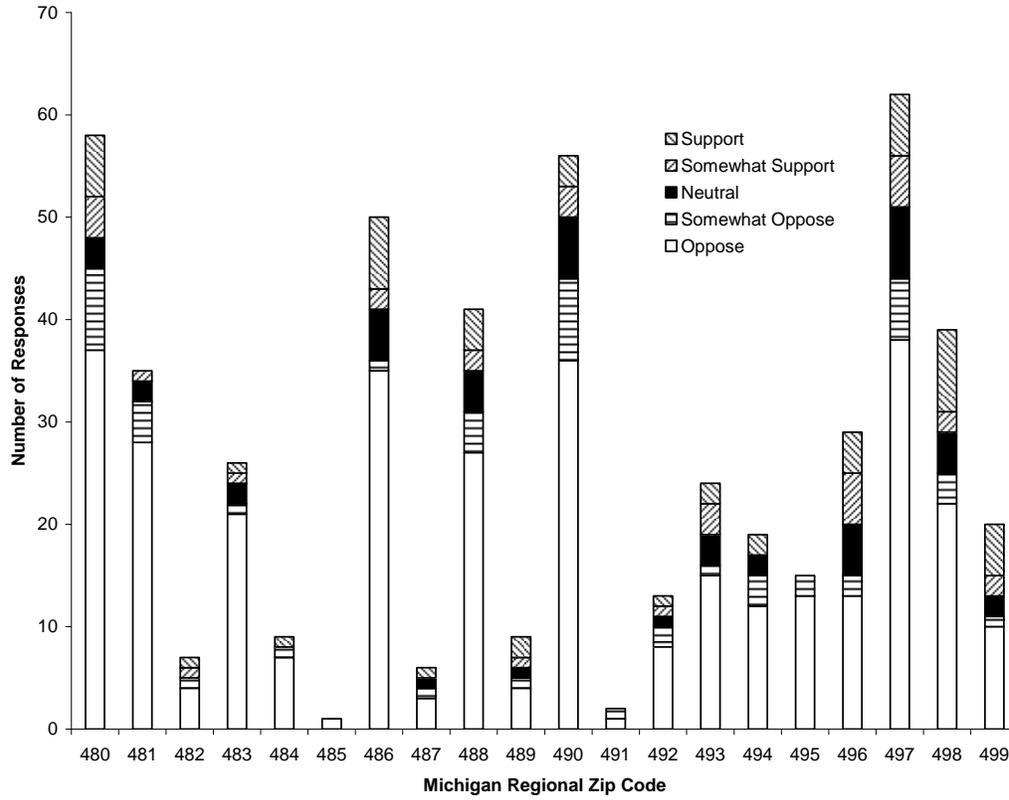


Figure VII. Michigan responses by regional zip code to a proposed minimum size limit of 38 inches.

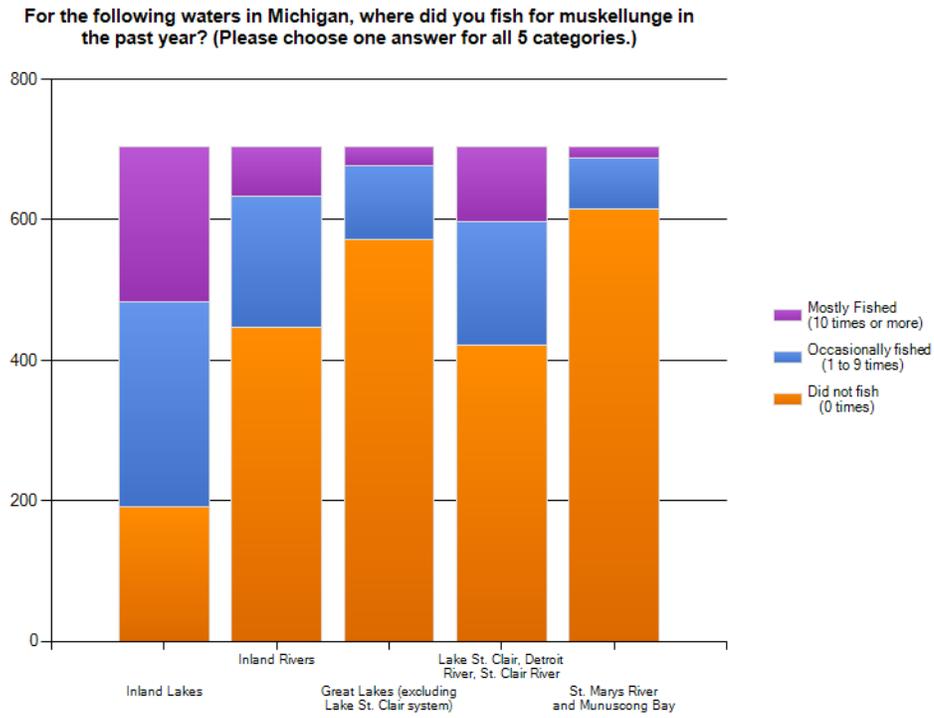


Figure VIII. All responses to muskellunge statewide survey for most frequently fished location in Michigan.

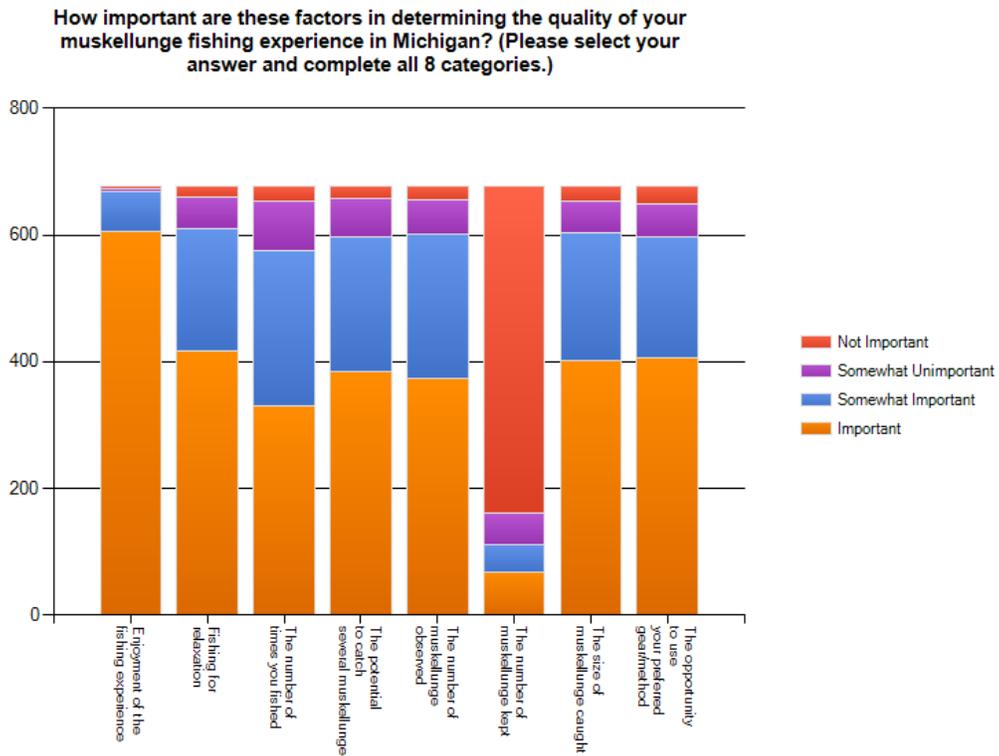


Figure IX. All responses to muskellunge statewide survey regarding factors that determined the quality of anglers fishing experience in Michigan.